**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Probability Introduction Worksheet**

**Given a regular deck of 52 cards, find the probability of each:**

* **In case you don’t know, a regular deck has the following:**

**n = 52 26 black, 26 red 3 types of face cards: Jack, Queen, King**

**Numbered cards from Ace (1) thru 10**

**4 suits: Diamonds (red), Spades (black), Hearts (red), Clubs (black)**

**One numbered card of each suit: Each suit has Ace, 1 – 10, Jack, Queen, King**

1. A queen 2. A red card

3. A black 10 4. A red Ace

5. A Jack of Hearts 6. A 7 **or** an 8

7. A 7 **or** a black card 8. A red card **and** a face card?

**In a small bag of M&M’s there are 4 blue, 3 orange, 2 red, and 6 green.** Find the probability of each. No replacement in between multiple picks.

9. Picking an orange one 10. Picking a red **or** a green one (when picking one)

11. Picking out **two** blue ones (in a row) 12. Picking out a red **then** an orange

13. **Not** picking out a green one 14. Picking out a blue **and** orange one (when picking one)

**In a town, it is known that 36% of the town are registered democrats, 42% of the town are college educated, and that 22% are college educated democrats.**  Find the probability of a randomly chosen person being….

15. A democrat OR college educated?

16. Neither a democrat nor college educated?

17. College educated GIVEN THAT they are a democrat?

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